

REVISION OF THE AUSTRALIAN CURCULIONIDÆ
 BELONGING TO THE SUBFAMILY
 CRYPTORHYNCHIDES.

BY ARTHUR M. LEA, F.E.S.

PART VI.

Genus PERISSOPS, Pascoe.

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Head convex, not concealed; ocular fovea variable. *Eyes* large or very large, finely faceted, subcontiguous or moderately distant. *Rostrum* moderately long or rather short, curved or almost straight, thin or thick and sexually variable. *Antennæ* moderately slender; scape inserted nearer apex than base of rostrum and shorter than funicle; two basal joints of funicle more or less elongate; club moderately long, sutures oblique. *Prothorax* more or less conical and transverse; ocular lobes prominent or not, base bisinuate. *Scutellum* small. *Elytra* closely applied to and outline continuous with that of prothorax. *Pectoral canal* wide and rather deep, terminated between intermediate coxæ. *Mesosternal receptacle* rather large, raised, emargination semicircular, base truncate, apices thin; cavernous. *Metasternum* shorter than the following segment; episterna distinct. Basal segment of *abdomen* as long as 2nd and 3rd combined, intercoxal process rather narrow, apex incurved, 3rd and 4th slightly produced backwards at sides, their combined length slightly more than that of 2nd and considerably more than that of 5th. Anterior *legs* moderately long, the others short; femora stout, dentate, feebly (especially the anterior) grooved, posterior not extending to apex of abdomen; tibiæ flat, curved, with a distinct subapical tooth in addition to the terminal hook; tarsi moderately long, 1st and 4th joints

rather long and subequal. Elliptic or elliptic-ovate, strongly convex, non-tuberculate, winged.

This genus has numerous close allies in Australia and the Malay Archipelago. Those here described are *Critomerus*, separated on account of the bidentate anterior femora; *Axionicus*, *Metranio-morpha*, and *Tepperia* on account of the intermediate tibiæ being angular outwardly; and *Pseudotepperia* and *Queenslandica*, on account of the coarsely faceted eyes. I have not described these allied genera in full, but have compared them with the above diagnosis and have described only those parts which are at variance with it.

The genus itself is rather numerously represented in Australia, but is not confined to it. The species now described may be divided into five sections. In the first section the rostrum is curved and longer than in the other species, the shoulders more prominent, and the clothing prettily variegated; it comprises two species (*ocellatus* and *carus*). The second section comprises three very closely allied species (*mucidus*, *multimaculatus* and *variegatus*), all having the elytral suture strongly raised, the clothing but slightly variegated and the rostrum almost perfectly straight. The third section takes in two species (*granulatus* and *semicalvus*), but they are not very closely allied; they agree, however, in having the body less convex, the prothorax more transverse and the rostrum feebly curved. The fourth section includes two species (*brevicollis* and *robiginosus*) showing a decided approach to *Cryptorhynchus*; in them the body is somewhat depressed, the prothorax rather strongly transverse, the rostrum lightly curved and the clothing dense. The fifth section contains three species (*intricatus*, *intricator* and *albonotatus*), in all of which the intermediate tibiæ are slightly angular at the outer base, the meso-sternal receptacle less solid than usual and the ocular fovea very narrow.

Elytra with a round eye-like spot on each side at base *ocellatus*, Redt.

Elytra without eye-like spots.

Ocular fovea large, transverse and bounded by eyes *semicalvus*, n.sp.

Ocular fovea smaller and longitudinal or indistinct.

Prothorax distinctly granulate..... *granulatus*, n.sp.

Prothorax not granulate.

Intermediate tibiae not angular at outer base.

Prothorax with very small punctures.

Elytral scales condensed into more or less large patches..... *variegatus*, n.sp.

Elytral scales nowhere condensed into large patches.

Elytral suture suddenly elevated near base..... *mucidus*, Pasc.

Elytral suture less suddenly elevated.... *multimaculatus*, n.sp.

Prothorax with rather large but more or less concealed punctures.

Alternate interstices not elevated. *carus*, n.sp.

Alternate interstices elevated.

Mesosternal receptacle strongly depressed at base *robiginosus*, n.sp.

Mesosternal receptacle not so..... *brevicollis*, n.sp.

Intermediate tibiae angular at outer base.

Elytra nowhere granulate..... *albonotatus*, n.sp.

Elytra with granules in places.

Prothorax without large punctures..... *intricatus*, n.sp.

Prothorax with large punctures on disc... *intricator*, n.sp.

PERISSOPS OCELLATUS, Redt.; Mast. Cat. Sp. No. 5567.

Enteles ocellatus, Redt.

♂. Ovate, subopaque. Dark brown. Rather densely clothed with small round scales of a brownish colour varying in places, a moderately distinct pale oblique fascia behind middle sometimes occupying the whole of the apical third, pale scales about median prothoracic line; elytra with elongate (and in places pale) scales scattered about, and with a moderately large, round, dark, velvety eye-like spot on each side at base between shoulders and suture. Under surface and legs with dense ochreous elongate scales; anterior portion of pectoral canal densely clothed, the scales paler there than elsewhere. Basal third of rostrum squamose.

Head with almost concealed punctures; vertex with a slight carina continued on basal portion of rostrum and depressed between and behind eyes. *Rostrum* curved, long, rather thin, shining; finely punctate; sides slightly incurved to middle,

grooved, the grooves parallel with and just above scrobes and terminating before antennæ. Scape slightly curved and compressed; basal joint of funicle thicker and shorter than 2nd, 2nd the length of 3rd-4th, these equal and equal in length to 5th-7th; club the length of five preceding joints, subsolid, finely pubescent. *Prothorax* conical, transverse; finely punctate; with a very feeble median carina (sometimes entirely absent). *Scutellum* small, rounded, shining. *Elytra* subcordate, almost twice the length of prothorax and wider at base, shoulders thickened; each with eleven rows of small shallow punctures; interstices round in places, scarcely raised; apex slightly emarginate. Apical segment of *abdomen* densely and rather coarsely punctate. *Legs* finely punctate; anterior femora almost edentate, each of the others with a moderately strong tooth; anterior tibia without a small sub-apical tooth, but the terminal hook large. Length $13\frac{1}{2}$, rostrum 4; width 7 mm.

♀. Differs in being less robust, prothorax less transverse, anterior legs shorter, rostrum thinner and slightly longer, not at all incurved to middle and dilated to apex, antennæ thinner and the scape not extending quite to apex of rostrum.

Hab.—S. Queensland—Northern Coastal Rivers of New South Wales.

The eye-like spots on the elytra render this species one of the most distinct of the Australian weevils; in even greatly abraded specimens they remain intact. The locality of "Sydney" given by Herr Redtenbacher is probably incorrect.

PERISSOPS CARUS, n.sp.

Elliptic, moderately convex, lightly shining. Reddish-brown, antennæ paler. More or less densely clothed with scales varying from white to sooty-brown. Head with sooty scales, a small yellowish spot between eyes, one behind each, and one at base; prothorax with a large discal subtriangular patch of pale fawn and white scales, the white scales in patches; a small disconnected white spot on each side of apex, flanks with dark scales; scutellum glabrous (in three specimens); elytra with white, pale fawn and

dark scales in strong contrast at base, and more or less distinctly so posteriorly, elsewhere feebly mottled. Under surface with dense and pale scales; legs more or less distinctly variegated.

Head with dense concealed punctures; ocular fovea indistinct. Rostrum the length of prothorax, lightly curved; sides at basal third coarsely punctate, elsewhere shining and minutely punctate. Scape inserted two-fifths from apex of rostrum and a trifle longer than funicle; 1st joint of the latter as long as 2nd and 3rd combined, 2nd as long as 3rd and 4th combined. *Prothorax* with dense, round, concealed punctures; median carina feebly traceable. *Elytra* wider than prothorax, strongly convex (especially along middle), with series of large punctures becoming much smaller posteriorly; interstices wider than punctures, themselves feebly punctate; suture finely granulate except at extreme base and posteriorly. *Under surface* with dense, partially concealed punctures; metasternal episterna each with a single irregular row. *Femora* with moderately large acute teeth. Length $8\frac{1}{4}$, rostrum $2\frac{1}{2}$; width 4 mm.

Hab.—Q.: Endeavour River (Mr. G. Masters).

A very pretty and distinct species allied (but not closely so) to *ocellatus*. On the 4th interstice, at the base of each elytron, there is a distinct subquadrate patch of dark scales, but it is not at all eye-like in character.

PERISSOPS MUCIDUS, Pasc.; *l.c.*, No. 5499.

♂. Elliptic-ovate, strongly convex, shining. Dark brown. Clothed with ochreous scales disposed in small patches; prothorax with a median line of scales dilated on basal half, a line of scales on each side; elytral suture without scales, elytra with small round brown scales scattered about, prothorax with similarly coloured but more elongate scales, and which give the disc a scratched appearance. Under surface with dense ochreous elongate scales, on the abdomen forming three lines down the middle, smaller scales elsewhere; anterior portion of pectoral canal with pale elongate scales; legs with shorter and sparser scales than on

sterna. Head with ochreous scales disposed in patches, sides of base of rostrum squamose.

Head finely punctate; ocular fovea deep and distinct; a narrow shining carina commencing at fovea and continued almost to antennæ, at its side two feeble irregular ridges slightly curved and terminating before carina. Rostrum long, rather flat, curved at apex; densely punctate and opaque; sides grooved, the groove just above but scarcely parallel with scrobes, terminating at antennæ. Scape straight; two basal joints of funicle elongate, 3rd-6th feebly decreasing, 7th slightly larger than 6th; club the length of four preceding joints. *Prothorax* subconical, transverse, finely punctate; on the flanks, especially towards base, with dense, rather large oblique punctures; constriction marked by rather small deep punctures. *Scutellum* small, longer than wide, smooth, apex pointed. *Elytra* along suture considerably more than thrice the length of prothorax, at base scarcely wider, widest about middle; middle strongly raised and suture almost crested, summit nearer base than apex, posterior declivity fully half total length; each with ten rows of small punctures; interstices rounded, scarcely raised; basal two-thirds of suture rather densely granulate, the granules minute, depressed, shining and placed in transverse series; apex scarcely emarginate. Apical segment of *abdomen* with large, round, shallow punctures. *Legs* finely punctate; femora dentate, the anterior less strongly than the others; anterior tibiæ bisinuate beneath, with a subapical swelling but without a tooth. Length $12\frac{1}{2}$, rostrum $3\frac{1}{4}$; width $6\frac{1}{2}$ mm.

♀. Differs in being usually larger, legs shorter, elytra with suture much less distinctly raised in the middle and almost obsolete granulate, rostrum smooth, shining and finely punctate, antennæ thinner, scape just reaching apex of rostrum, and paler.

Hab.—S. Queensland—Northern Coastal Rivers of New South Wales.

The crest on the elytra is more distinct than in the other species here described. The small brown scales on the elytra are invisible to the naked eye, as they so closely resemble the derm

on which they rest. The species is exceedingly common on the Richmond River.

PERISSOPS MULTIMACULATUS, n.sp. v. n.var.

♂. Reddish-brown. Median prothoracic line of scales interrupted in middle and not dilated at base. Elytra with suture moderately strongly but not suddenly raised. Other characters as in *mucidus*. Length 11, rostrum $2\frac{3}{4}$; width $5\frac{1}{2}$ mm.

Hab.—Endeavour River (Macleay Mus.).

Very close to and probably only a (very distinct) variety of *mucidus*. I have but two male specimens under observation, but the species or variety appears to be very common about the Endeavour River. Each of the elytral spots of pale scales seldom covers more than a single puncture, so that they are much more numerous than in either *mucidus* or *variegatus*.

PERISSOPS VARIEGATUS, n.sp.

Elliptic-ovate, strongly convex, subopaque. Dark brown, funicle paler. Clothed with whitish and pale ochreous scales disposed in patches; elytra almost entirely clothed; from base along suture to middle, and thence an oblique irregular line to each side, and several small spots near base apparently nude, but clothed with minute scales almost identical in colour with the derm on which they rest; prothorax with sides rather densely clothed, median line marked at apex with a narrow spot of scales, a larger spot at base and a small spot on each side in front of basal spot. Under surface and legs rather sparsely squamose, the scales small and rounded, except on sternæ, where they are moderately elongate and denser; anterior portion of pectoral canal squamose. Head with a patch of scales on summit and behind each eye; rostrum rather sparsely squamose throughout.

Head finely punctate; ocular fovea deep; eyes subcontiguous, a depression between and behind them. Rostrum moderately long, straight, rather wide and flat; irregularly punctate; a shining carina commencing at ocular fovea and continued past antennæ, two irregular elevations on each side between antennæ, base irregularly

and shallowly grooved, sides grooved, grooves above but not parallel with scrobes, and terminating at antennæ. Two basal joints of funicle elongate, 1st slightly longer than 2nd, 3rd-7th gradually increasing in width and decreasing in length; club the length of four preceding joints. *Prothorax* subconical, transverse; finely punctate, flanks punctured almost as in *P. mucidus*, but the punctures more open. *Elytra* about thrice the length of prothorax, slightly wider at base, slightly the widest about middle; suture with three distinct slopes (2 mm. at base raised at about 60°, 7 mm. in middle decreasing at about 15°, 5 mm. posterior declivity at about 45°); rather densely granulate except on apical fourth, a few glossy granules on 2nd-5th interstices near base; each elytron with ten almost impunctate striæ, interstices rounded, scarcely raised; apex feebly emarginate. Apical segment of *abdomen* with a few large punctures. *Legs* finely punctate; femora dentate, the intermediate more strongly than the others; anterior tibiæ bisinuate beneath, each with a small subapical tooth in addition to the terminal hook. Length 13½, rostrum 3½; width 6½ mm.

♀. Differs in being less robust, rostrum shining, finely punctate, much narrower and not carinate, antennæ thinner, scape not reaching apex of rostrum, legs shorter, and elytral suture less raised.

Hab.—N.Q.: Endeavour River (Mr. G. Masters).

Approaches *P. mucidus*, but is abundantly distinct from that species. The outline of the male, when viewed from the side, resembles a reaper's sickle, as it does also in *mucidus*. There are a few granules about apex of elytra, but they are usually concealed by scales.

PERISSOPS GRANULATUS, n.sp.

Elliptic, opaque. Black, antennæ and apical joints of tarsi of a rather dingy red. Rather sparsely clothed with dingy whitish scales, denser on apical third of elytra and sides of prothorax than elsewhere. Under surface and legs rather sparsely squamose, the scales varying in colour from dingy white to brown; apical segment of abdomen densely squamose; anterior portion of

pectoral canal squamose. Head with several small patches of ochreous scales.

Head densely punctate, slightly depressed between eyes; ocular fovea not traceable. Rostrum shorter than prothorax, slightly curved, moderately wide; densely and coarsely punctate, punctures smaller towards apex; lateral grooves scarcely traceable. Scape inserted slightly nearer apex than base of rostrum, and shorter than funicle; two basal joints of funicle elongate; club rather short. *Prothorax* transverse, scarcely conical, sides subparallel near base, incurved to apex; densely covered with small shining granules, except at apex which is punctate. *Scutellum* small, somewhat rounded, depressed in the middle. *Elytra* about thrice the length of prothorax, slightly wider at base, feebly decreasing to near apex; with numerous small shining granules on basal half, each of which overhangs a puncture; each elytron with about ten rows of rather large punctures, larger towards base than towards apex; interstices slightly raised and irregular. *Under surface* with rather dense, strong punctures. *Legs* densely punctate; femora strongly dentate, and each with a granule in emargination; tibiæ feebly ribbed. Length 10, rostrum 2; width $4\frac{1}{3}$ mm.

Hab.—Q.: Gayndah (Mr. G. Masters), Cairns (Macleay Mus.).

Each of the femora is supplied with a small granule in its emargination, but on the four posterior they are very small. The prothoracic granules are obliquely truncate in front, and each has a small median puncture.

PERISSOPS SEMICALVUS, n.sp.

Subcylindrical and lightly shining. Reddish-brown, antennæ (club excepted) paler. Densely clothed with pale ochreous scales with white ones rather sparsely distributed amongst them, a small angular spot of sooty scales on 2nd interstice not far from apex. Under surface with scales varying from almost white on the sterna to ochreous and sooty on the abdomen. Head glabrous except for a patch behind each eye and a longitudinal patch at base; sides of rostrum squamose.

Head very minutely punctate, with a feeble longitudinal impression at base; ocular fovea very large, bounded on each side by the eye itself. Rostrum wide, slightly shorter than prothorax, moderately curved, sides incurved to middle; in ♂ with distinct punctures throughout but coarse only at sides of basal third, in ♀ shining and finely punctate except at sides of base. Scape inserted two-fifths from apex of rostrum and the length of funicle; 1st joint of funicle stouter but very little longer than 2nd, 2nd the length of 3rd and 4th combined. *Prothorax* rather strongly transverse; with dense partially concealed punctures. *Elytra* subcylindrical, very little wider than prothorax; with series of large punctures becoming much smaller posteriorly; interstices wider than punctures and separately convex, the 3rd, 4th and 5th subtuberculate and granulate at base. *Under surface* with dense partially concealed punctures. *Femora* with rather large acute teeth. Length $7\frac{1}{2}$, rostrum $1\frac{1}{2}$; width 3 mm.

Hab.—Q. : Endeavour River (Mr. G. Masters).

The ocular fovea is larger than in any other species of the subfamily with which I am acquainted. To the naked eye the basal half of the elytra appears to be clothed with dark scales in patches, but this is almost entirely due to the scales there being much sparser than elsewhere; on the prothorax three spots (from the same cause) may be seen at the base.

PERISSOPS ALBONOTATUS, n.sp.

♂ (?) Elongate-ovate, strongly convex, polished. Black, antennæ almost black. Clothed with very distinct but small patches of white scales, the interspaces very feebly and indistinctly clothed with small white scales.

Head with sparse, indistinct but not concealed punctures; ocular fovea very narrow. Rostrum stout, the length of prothorax, feebly curved, sides incurved to middle; rather distinctly punctate except between antennæ. Scape inserted two-fifths from apex of rostrum and shorter than funicle, two basal joints of funicle rather long, 1st as long as 2nd and 3rd combined, 2nd as long as 3rd and 4th combined; club (for the genus) rather short. *Pro-*

thorax feebly transverse; with dense, minute punctures and with much larger (but still small) punctures scattered about. *Elytra* widest at about middle, at base scarcely wider than prothorax; with series of rather large punctures becoming much smaller posteriorly; alternate interstices feebly and irregularly but distinctly raised. *Under surface* with rather sparse minute punctures; metasternal episterna impunctate in middle. *Femora* rather less stout than usual and obtusely dentate; intermediate tibiae very feebly angular at outer base. Length $8\frac{1}{2}$, rostrum $2\frac{1}{3}$; width 4 mm.

Hab.—N.S.W.: Richmond River (Mr. W. W. Froggatt).

The majority of the punctures are not concealed, even on the prothorax. On the prothorax there are about four patches of white scales on each side and a very distinct median stripe on apical half; on each elytron there are about fifteen small spots of irregular size and more numerous posteriorly than elsewhere; the sterna and legs are rather densely clothed; on the head there is a stripe at the base.

PERISSOPS INTRICATUS, n.sp.

Elongate-ovate, subcylindrical, moderately shining. Brownish-black. Clothed with scales of a sooty-brown and almost pure white in strong contrast, the white scales forming more or less irregular patterns. Under surface and legs with white scales, with sooty scales in obscure patches. Head and base of rostrum with white scales, the former with pale fawn-coloured scales in middle but with a longitudinal white stripe at base.

Head with small dense and partially concealed punctures; ocular fovea very narrow. Rostrum moderately wide, the length of prothorax, feebly curved; distinctly punctate except between antennæ. Scape inserted not much closer to apex than base of rostrum and shorter than funicle; 1st joint of funicle the length of 2nd and 3rd combined, 2nd slightly shorter than 3rd; club oblong-ovate. *Prothorax* lightly transverse, punctures as in the preceding except that they are concealed by clothing. *Elytra* widest at about middle, at base no wider than prothorax; with

series of large punctures becoming much smaller posteriorly; interstices wider than punctures, separately convex, the 3rd rather strongly raised and granulate at base, suture feebly transversely granulate. *Under surface* minutely punctate. *Femora* feebly dentate; intermediate tibiæ distinctly angular at the outer base. Length 9, rostrum $2\frac{1}{2}$; width 4 mm.

Hab.—Q.: Brisbane (type in Mr. A. Simson's Coll.).

The white markings on the prothorax are all connected and consist of a stripe on each side and which are divided at base and again at apex, joined together across apical third and with a stripe on apical half crossing it; on each of the elytra there is a semicircle extending from the base to basal fourth, a zigzag oblique stripe extending from near base to suture at apical third, where from the 3rd and 4th interstices it sends out an irregular stripe that extends quite to the apex with a short inner projection.

PERISSOPS INTRICATOR, n.sp.

Elliptic, subcylindrical and subopaque. Blackish-brown, antennæ scarcely paler. Clothed with white scales forming patterns, the interspaces with sparse, minute and darker scales. Under surface, legs, head and sides of base of rostrum with white scales.

Head and antennæ as in the preceding. Rostrum considerably shorter and stouter but with similar punctures. *Prothorax* rather strongly transverse; densely and minutely punctate, and with large, round, dense, clearly cut punctures. *Elytra* at extreme base no wider than prothorax, but wider a short distance below, thence parallel-sided to near apex; with series of large punctures, on basal half wider than interstices but becoming very indistinct posteriorly; interstices separately convex, the alternate ones very feebly raised, the suture and four interstices on each side on basal half with feeble granules, 3rd and 4th subtuberculate at base. *Under surface* with small but very distinct punctures. *Femora* acutely dentate; intermediate tibiæ distinctly angular at the outer base. Length $6\frac{1}{2}$, rostrum $1\frac{2}{5}$; width 3 mm.

Hab.—Q.: Barron River (type in Macleay Mus.).

Close to the preceding species, but the body more compact, the punctures much stronger (especially on prothorax) and the rostrum shorter. The pattern of the white scales is much as in *intricatus*, but is less sharply defined owing to their looseness and the sparsity of darker ones. On the elytra the markings are as described in that species except that the zigzag stripe commences at the base itself; on the prothorax the markings are the same except that in addition the median line is continuous and that there is an irregular transverse line from coxa to coxa.

PERISSOPS BREVICOLLIS, n.sp.

Oblong-elliptic, subdepressed, opaque. Brownish-black, antennæ of a dingy red. Rather densely clothed with ochreous scales, with small sooty spots and single white scales scattered about. Under surface and legs with dense and rather pale scales.

Head with dense partially concealed punctures; ocular fovea feeble. Rostrum the length of prothorax, moderately curved and comparatively thin; in ♂ with distinct punctures (except between antennæ), becoming coarse on basal third, in ♀ distinctly punctate only at basal third. Scape inserted two-fifths from apex of rostrum and slightly shorter than funicle; 1st joint of funicle as long as 2nd and 3rd combined, 2nd as long as 3rd and 4th combined. *Prothorax* strongly transverse, sides strongly rounded; with dense, round, moderately large, partially concealed punctures. *Elytra* slightly wider than prothorax, shoulders produced, sides parallel to near apex; with series of large punctures becoming smaller posteriorly; interstices densely punctate, the alternate ones raised, 3rd more strongly raised at base than the others and with small granules. *Under surface* with dense and not very small punctures. Mesosternal receptacle semicircular and not suddenly depressed at base. *Femora* with large and acute teeth. Length $6\frac{1}{3}$, rostrum $1\frac{1}{2}$; width 3 mm.

Hab.—Q.: Endeavour River (Mr. G. Masters), Cairns (Macleay Mus.).

A rather aberrant species and less convex than any of the others here described. On one of the (6) specimens under

examination there is a feeble oblique whitish fascia from the shoulder to the basal third, but not quite reaching the suture.

PERISSOPS ROBIGINOSUS, n.sp.

Elliptic, opaque. Black, antennæ of a rather dingy red. Densely clothed with ochreous scales, amongst which white scales are singly but rather thickly interspersed, each elytron with a large triangular patch of dark scales, scutellum glabrous. Under surface and legs with whitish scales.

Head with dense concealed punctures; ocular fovea indistinct. Rostrum the length of prothorax, lightly curved, wide, sides incurved to middle; in ♂ with rather coarse punctures (except between antennæ), becoming decidedly coarse on basal third; in ♀ the rostrum is longer and thinner, and the punctures, though moderately distinct in front, are coarse only on the basal fourth. Scape in ♂ inserted slightly closer to apex than base of rostrum (in ♀ *vice versa*) and shorter than funicle, the latter as in the preceding species, except that it is a little stouter. *Prothorax* moderately transverse; with dense, moderately large and more or less concealed punctures; with a scarcely traceable median carina. *Elytra* scarcely wider than prothorax, shoulders very feebly rounded, parallel-sided to near apex; with series of large punctures becoming smaller posteriorly; interstices wider than punctures, the alternate ones feebly raised, and all with minute shining granules, which become very indistinct posteriorly. *Under surface* with dense and not very small punctures. Mesosternal receptacle lightly transverse, base almost flat, suddenly and strongly elevated in front. *Femora* with rather large acute teeth. Length 9, rostrum $2\frac{1}{4}$; width 4; variation in length $7-9\frac{1}{2}$ mm.

Hab.—Q.: Cape York, Somerset (Macleay Mus.), Endeavour River (Mr. C. French), Mount Dryander (Mr. A. Simson).

Allied to but very distinct from the preceding species. On some of the (6) specimens under examination there are a few small sooty patches on the disc of both prothorax and elytra; on the former there are sometimes four feeble whitish spots. The

large dark patches on the elytra form isosceles triangles, of which the widest side extends from each shoulder to the 3rd interstice beyond the middle; on perfect specimens the triangles are sharply defined, but when rubbed, these are less distinct.

Genus AXIONICUS, Pascoe.

Journ. Linn. Soc., Zool., x. 1869, p. 455.

Eyes large, finely faceted, rather widely separated. Rostrum rather stout and almost straight. *Antennæ* rather stout. *Legs* rather long; femora feebly grooved and dentate, posterior not extending to apex of abdomen; tibiæ flat and thin, almost straight, external edge of the intermediate angular. Other characters as in *Perissops*.

This genus is very close indeed to *Perissops*, but as its type is a well marked and well known species it was not thought advisable to propose its degradation; more especially when it is considered that some of the species now placed in *Perissops* may not remain there.

AXIONICUS INSIGNIS, Pasc.; *l.c.* No. 5501.

♂. Elliptic, strongly convex, as deep as wide. Black or brownish-black. Densely and irregularly clothed with short or subelongate scales, varying from snowy-white to velvety-black.

Head with dense but shallow and partially concealed punctures. Rostrum almost the length of prothorax, almost parallel-sided; coarsely and irregularly punctate. First joint of funicle longer than 2nd. *Prothorax* subconical, no wider than long; with irregular and rather coarse punctures; with several longitudinal waved and obtuse ridges, and a very distinct median carina. *Elytra* strongly convex throughout, not much more than twice the length and outline continuous with that of prothorax; punctures not very large; alternate interstices very distinctly raised and usually shining, the 3rd subtuberculate near base; a subtriangular space from the shoulders to the suture beyond the middle with distinct granules, each of which is hollow and bears a seta on its posterior face. *Under surface* with dense, partially

concealed punctures. Anterior *legs* long and thin, their femora very minutely dentate, and tibiæ almost perfectly straight; four posterior femora shorter, stouter and more distinctly dentate; intermediate tibiæ lightly curved, and with an angular projection near the outer base, so that the basal portion appears to be quadrate. Length 16, rostrum $4\frac{1}{4}$; width 7; variation in length 11-16 mm.

♀. Differs in having the femora with equal teeth, and the anterior and posterior of equal length, the rostrum thinner, suddenly narrowed from near base, the wider portion only squamose, elsewhere being shining and comparatively finely and sparsely punctate.

Hab.—"Queensland" (Pascoe), Rockhampton (Macleay Mus.)—N.S.W.: Wellington (Mr. W. W. Froggatt), Tamworth (Lea).

One of the most distinct species of the subfamily. The white scales form a distinct patch at the apex of prothorax, a very distinct postmedian oblique fascia on the elytra, almost entirely clothe the metasternum, are distributed in small spots and stripes on the abdomen, and are prettily variegated with dark brown on the legs.

METRANIOMORPHA, n.g.

Eyes very large, rather finely faceted, subapproximate. *Rostrum* moderately short and stout, feebly curved. *Antennæ* rather stout; club oblong-ovate, sutures straight. *Elytra* oblong-cordate, wider than prothorax at base. *Pectoral canal* terminated between four anterior coxæ. *Mesosternal receptacle* rather strongly raised, sides incurved to base, emargination semicircular; cavernous. *Legs* rather short, femora stout, dentate, distinctly grooved, posterior not extending to apex of abdomen; tibiæ scarcely compressed, external edge angular. Other characters as in *Perissops*.

METRANIOMORPHA ENTIMA, n.sp.

Dark brownish-black, antennæ dull reddish-brown. Moderately densely clothed with small but moderately long sooty adpressed scales, under surface and legs with longer and pale scales. Head

with two very distinct eye-like spots of sooty-black scales surrounded by white scales, the white scales conjoined between the two spots; each elytron at apex with a round spot of velvety-black scales surrounded by a snowy-white ring; white scales margining scutellum.

Head with punctures and ocular fovea concealed; eyes almost touching. *Rostrum* slightly shorter than prothorax and rather wide, wider at apex than elsewhere; coarsely punctate, but punctures more or less concealed behind antennæ; with a feeble median ridge. *Scape* shorter than funicle, inserted two-fifths from apex of rostrum; two basal joints of funicle stout but moderately long, the others transverse. *Prothorax* moderately transverse, sides strongly rounded, base strongly bisinuate; disc feebly, the sides rather strongly, punctate. *Scutellum* round, level with but separated from elytra by a circular impression. *Elytra* considerably (but not suddenly) wider than prothorax, and fully thrice as long, sides gently and continuously rounded; with series of small distant punctures; interstices much wider than punctures, and not separately rounded. *Under surface* rather densely punctate; 3rd and 4th abdominal segments drawn backwards at sides. *Femora* stout, rather acutely dentate, posterior scarcely extending to apical segment; all the tibiæ angular at the outer base, the posterior near the apex as well. Length $9\frac{1}{2}$, rostrum 2; width $5\frac{1}{2}$ mm.

Hab.—N.S.W.: Ballina (Mr. W. W. Froggatt).

The outline of this species is much the same as that of *Metrania palliata* as figured by Mr. Pascoe.* The eye-like spots are very distinct on both head and elytra; the white scales about the scutellum are less distinct; on the prothorax there are several feeble clusters of pale scales. The sooty scales on the unique specimen under examination have a greasy appearance, despite the fact that it has been boiled as well as soaked for some considerable time in chloroform.

* Journ. Linn. Soc., Zool., xi., pl. xiii., fig. 11, 1872.

TEPPERIA, n.g.

Eyes moderately large, finely faceted, rather widely separated. *Rostrum* short, wide and feebly curved. *Antennæ* stout; scape inserted nearer apex than base of rostrum and longer than funicle; 1st joint of funicle stout, the others strongly transverse; club stout, almost the length of funicle, sutures oblique. *Elytra* cordate, wider than prothorax and each separately rounded at base. *Mesosternal receptacle* feebly raised, semicircular, cavernous. *Legs* short; tibiæ rather flat, feebly curved, external edge angular. Other characters as in *Perissops*.

From nearly all the close allies of *Perissops* this genus may be distinguished by the very short funicle and by each elytron being separately rounded at the base; it is very close to *Axionicus*, but the two characters mentioned are sufficiently distinctive. I have dedicated the genus to Mr. J. G. Otto Tepper, of the South Australian Museum, and the first (so far as I am aware) to attempt to popularise the study of Australian insects.

Length 9 mm. or less..... *sterculiæ*.
 Length 11 mm. or more..... *major*.

TEPPERIA STERCULIÆ, n.sp.

Dark reddish-brown. Very densely clothed with scales varying from a pale to dark chocolate-brown and interspersed (rather thickly at sides of prothorax) with white scales; elytra with a very distinct whitish fascia at summit of posterior declivity, extending between the 5th interstices, the margins more or less indented and bounded anteriorly and posteriorly by darker scales. Under surface and legs with dense whitish scales, becoming darker (but picked out with white scales) on three apical segments, the tibiæ and apex of femora. Head and rostrum with paler scales than on prothorax, and with white scales (thick on apex of rostrum) rather thinly scattered about.

Head with dense concealed punctures; towards base with an impressed (but concealed) median line. *Rostrum* shorter than prothorax, very feebly curved, sides incurved to middle, scarcely

twice as long as the greatest width; with dense concealed punctures throughout and with a feebly traceable median carina. *Prothorax*: transverse, subconical, base bisinuate; with dense minute punctures and scattered larger ones, all of which are concealed. *Scutellum* subquadrate. *Elytra* not much wider than prothorax and scarcely twice and one-half as long, shoulders rounded, sides feebly decreasing (with a rounded outline) to near apex; with series of large, round, deep, more or less concealed punctures, becoming smaller posteriorly; alternate interstices distinctly but rather feebly raised. *Under surface* with dense, minute and concealed punctures and with larger partially exposed ones. Suture between 1st and 2nd abdominal segments lightly curved in middle. *Femora* stout, shallowly grooved and rather feebly dentate, posterior scarcely extending to penultimate segments; all the tibiae angular outwardly near base. Length 9, rostrum 2; width 5; variation in length $7\frac{1}{2}$ -9 mm.

Hab.—N.S.W.: Yass (Mr. W. W. Froggatt), Clarence River (Macleay Mus.), Tamworth (Lea; on the "Kurrajong" *Sterculia* sp.).

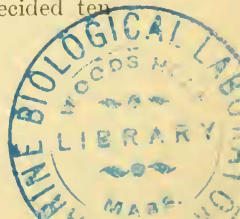
The elytral fascia is always distinct though much less so on some specimens than on others.

TEPPERIA MAJOR, n.sp. v. n.var.

Dark reddish-brown. Very densely clothed with rusty-brown scales (paler on under surface than elsewhere), amongst which white scales are rather thinly scattered, prothorax with an obscure darker patch at base; elytra at summit of posterior declivity with a fasciate patch (wider along suture than at sides) of whitish scales extending between the 5th interstices. Length $11\frac{1}{2}$, rostrum 3; width $6\frac{2}{3}$; variation in length 11-12 mm.

Hab.—N.S.W.: Richmond River.

In general appearance very close to the preceding species, but the rostrum longer and more noticeably curved, the elytra proportionately wider, the clothing less variegated and rustier, with the individual scales longer; the scales have also a decided ten-



dency to form into small fascicles (especially those composing the fascia), whilst in the preceding species this is much less the case. I have also never seen a specimen of *major* less than 11 mm., nor of *sterculiæ* more than 9 mm. in length.

PSEUDOTEPPERIA, n.g.

Eyes not very large, ovate, rather coarsely faceted. *Rostrum* rather short and stout, feebly curved. *Antennæ* moderately stout; scape inserted nearer apex than base of rostrum and the length of funicle; two basal joints of the latter moderately long, the others strongly transverse; club rather large, almost the length of funicle, sutures oblique. *Elytra* elongate-cordate, wider than prothorax and each separately rounded at base. Other characters as in *Perissops*.

In its elytra separately rounded at the base and short funicle this genus resembles *Tepperia*, but the tibiæ are different and the facets of the eyes larger.

PSEUDOTEPPERIA COMPTA, n.sp.

Black, antennæ and tarsi reddish-brown. Moderately densely clothed with ochreous-brown scales, becoming chocolate-brown in places, prothorax with a few feeble spots of pale scales; each elytron with two large patches of cream-coloured scales and two velvety black spots.

Head with dense concealed punctures. *Rostrum* shorter than prothorax, sides slightly irregular; densely and strongly punctate throughout, but the punctures concealed behind antennæ. *Prothorax* lightly transverse, sides strongly rounded, base very decidedly bisinuate and more than twice the width of apex; densely punctate throughout, the punctures rather large but more or less concealed, on the side the interstices between the punctures frequently showing as granules; with a feeble but almost continuous median carina. *Scutellum* small and shining. *Elytra* not much and not suddenly wider than prothorax, and about twice and one-half as long; with series of apparently large but concealed punctures; interstices rather narrow and with irregular

series of small shining granules. *Under surface* with dense but more or less concealed punctures. *Legs* rather short and densely punctate; femora stout, distinctly but not very strongly dentate, posterior scarcely extending to apical segment; tibiæ feebly compressed and bisinuate beneath, in addition to the (strong) terminal hook each with a subapical tooth. Length 8, rostrum 2; width 4 mm.

Hab.—N.W. Australia (type in Macleay Mus.).

The pale patches of scales on the elytra are near the base and on the posterior declivity; the basal patch extends from the 3rd interstice to the margin, its anterior inner angle being marked with a dark and perfectly circular velvety spot; the posterior patch is irregularly semicircular in outline and commences on the 2nd interstice; its inner face at the middle is marked with an angular dark spot similar in character to the basal one.

CRITOMERUS, n.g.

Eyes large, rather finely faceted, subcontiguous. *Rostrum* moderately long and rather thin but not rounded, lightly curved. *Club* ovate, sutures straight. *Pectoral canal* terminated between four anterior coxæ. *Abdomen* with perfectly straight sutures, 1st segment slightly longer than the two following combined, intercoxal process narrow, 2nd the length of 5th and very slightly longer than 3rd or 4th. Anterior *femora* bidentate. Other characters as in *Perissops*.

Closely allied to *Perissops*, but the anterior femora bidentate. The species described below appears to be a common one in certain parts of Queensland. This genus is a highly interesting one on account of the bidentate anterior femora.

CRITOMERUS EMBLEMATICUS, n.sp.

Brownish-black, antennæ of a dingy red. Densely clothed with scales varying from a dark straw-colour to ochreous; prothorax with small chocolate-brown scales except on sides, a few spots scattered about, and a basal median patch that is suddenly

narrowed in front at its middle and has a slight projection on each side before the narrower part; each elytron with a triangular patch of chocolate-brown scales extending from the side to the 3rd interstice beyond the middle, the side beyond the triangle with a small dark spot, each side at base with two small dark spots. Each of the femora and tibiæ with an obscure spot of dark scales. Head behind and between eyes and sides at base of rostrum feebly clothed.

Head with small, dense, not concealed punctures. Rostrum the length of prothorax, moderately wide, sides lightly incurved to middle; basal half coarsely punctate, apical half shining and rather finely punctate. Scape inserted one-third from apex of rostrum; two basal joints of funicle subequal in length, 4th-7th transverse. *Prothorax* transverse, subconical, base rather strongly bisinuate and more than twice the width of apex; with small, dense, more or less concealed punctures. *Scutellum* shining and oblong-ovate. *Elytra* scarcely more than twice the length of prothorax, the outlines continuous; with series of small concealed punctures, interstices not separately raised and not at all distinct, with minute shining granules more numerous on and about suture than elsewhere. *Under surface* with dense more or less concealed punctures. *Femora* stout, posterior not extending to apex of abdomen, anterior strongly bidentate, the apical tooth more acute than the basal one; intermediate feebly, the posterior still more feebly unidentate; tibiæ lightly curved. Length 8, rostrum $2\frac{1}{4}$; width $4\frac{1}{3}$ mm.

Hab.—Queensland (Mr. C. French), Cairns (Mr. G. Masters), Endeavour River (Macleay Mus.).

A strongly marked species. The pale basal patch on the prothorax is not unlike the crest of the Prince of Wales.

QUEENSLANDICA, n.g.

Eyes moderately large, coarsely faceted. *Rostrum* not very long, moderately wide, almost straight. *Antennæ* rather stout; club rather large and ovate, sutures feebly curved. *Prothorax* strongly transverse. *Pectoral canal* terminated between four

anterior coxæ. *Mesosternal receptacle* feebly raised, strongly transverse, emargination widely transverse; cavernous. *Legs* rather short; femora edentate, distinctly grooved. Other characters as in *Perissops*.

The eyes are more coarsely faceted than in any of the close allies of *Perissops*, the prothorax is more transverse and the femora are edentate, so that the genus is a rather distinct one.

Elytra with a circular patch of dark scales posteriorly..... *posticalis*.
Elytra without dark scales posteriorly..... *mundus*.

QUEENSLANDICA POSTICALIS, n.sp.

Reddish-brown, antennæ paler. Elytra with large, soft, dingy whitish scales, a large and almost circular patch of chocolate-brown scales on posterior declivity. Under surface with large, soft, round, dingy white scales; legs densely squamose. Head and base of rostrum with dingy scales.

Head with dense concealed punctures. Rostrum the length of prothorax and rather wide, sides feebly decreasing in width to antennæ, thence parallel to apex; basal third strongly punctate, elsewhere shining and finely but distinctly punctate. Scape inserted two-fifths from apex of rostrum and the length of funicle; two basal joints of the latter moderately long and subequal, the others transverse. *Prothorax* bisinuate at base; with dense, round, not very large punctures becoming minute at apex. *Elytra* scarcely wider than prothorax and twice and one-half as long; with series of moderately large almost entirely concealed punctures; interstices regular and feebly separately convex. *Under surface* with moderately dense punctures, each of which is traceable although covered by a scale. Posterior *femora* terminated considerably before apex of abdomen; tibiæ compressed and lightly curved. Length $5\frac{1}{4}$, rostrum $1\frac{1}{6}$; width $2\frac{1}{2}$ mm.

Hab.—Lizard Island (Mr. G. Masters).

As this species is very distinct, I have described it, although on the unique specimen under examination the prothoracic scales are almost entirely abraded; they appear, however, to be much the same as on the elytra.

QUEENSLANDICA MUNDA, n.sp.

Blackish-brown, antennæ dull red. Densely clothed with soft creamy-white scales, darker at base of prothorax and surrounding (except at base) a large median space (where the scales are pale) on the elytra; prothoracic scales much larger than those of elytra and formed into six feeble fascicles, four across middle and two at apex. Under surface with dull white scales becoming darker from middle of 2nd abdominal segment; legs with dark scales picked out with white, except on the lower parts of femora where they are almost entirely white. Head with dense fawn-coloured scales becoming white at base of rostrum.

Head with dense concealed punctures. Rostrum the length of prothorax, sides feebly decreasing in width to near antennæ, thence parallel to apex; in ♂ basal half coarsely punctate, apical half subopaque and moderately strongly punctate; in ♀ only the basal third is strongly punctate, elsewhere shining and finely punctate. *Prothorax, elytra* and *legs* as in the preceding. *Under surface* with dense and almost entirely concealed punctures. Length 5, rostrum $1\frac{1}{6}$; width $2\frac{1}{4}$; variation in length 4-5 mm.

Hab.—Q. : Cape York (Macleay Mus.).

The clothing is of a peculiarly soft nature. The prothoracic scales (except those composing the fascicles and a few that are feebly concave) are perfectly flat.

Genus PROTOPALUS, Schönherr.

Gen. Spec. Curc. iv. Pt. 1, p. 44, Genus No. 303; Waterhouse, Trans. Ent. Soc. n. ser. ii. p. 191, Proc. p. 102; Lacordaire, Gen. Col. vii. p. 132.

Head moderately large, not concealed by prothorax; ocular fovea variable. *Eyes* large and finely faceted, produced below. *Rostrum* stout or moderately stout, slightly curved, the length of or considerably longer than prothorax. *Antennæ* variable; slender, inserted closer to apex of rostrum than base; club small, joints oblique. *Prothorax* subconical, apex feebly produced and

rounded, base bisinuate; constriction deep; ocular lobes produced, moderately acute and almost right-angled; carinate along median line. *Scutellum* distinct, rounded, transverse or longitudinal. *Elytra* much wider than prothorax, shoulders prominent, sides decreasing in width from base; suture strongly raised. *Pectoral canal* moderately deep and wide, terminated between the intermediate or the four anterior coxæ. *Mesosternal receptacle* variable. *Metasternum* shorter than basal segment of abdomen; episterna moderately large. *Abdomen* large, sutures distinct; 1st segment about twice the length of 2nd; intercoxal process narrow and rounded; 3rd and 4th large, their combined length greater than that of the 2nd or 5th. *Legs* long; femora ridged beneath, the ridge of each terminating in a feeble tooth; feebly grooved; posterior passing elytra or not; tibiæ compressed, thin, in addition to terminal hook with an almost obsolete subapical tooth; tarsi shorter than tibiæ, 3rd joint wide, deeply bilobed, claw-joint elongate, setose; claws stout. Elliptic (except for shoulders), strongly convex, granulate, winged.

One of the most remarkable genera of the Australian *Cryptorhynchides*, and rivalling many of the *Brenthideæ* in its sexual variations. Its most extraordinary feature is the mesosternal receptacle: in *Schönherri* it is open, in *tectus* it is of the usual cavernous form, in *dromedarius* it is very slightly, and in *carinatus* moderately cavernous. The apex of the rostrum in the majority of the species rests in the mesosternal receptacle, but in *Schönherri* it extends beyond it to the abdomen. Four species occur in the tropical scrubs of Queensland and New South Wales, and a fifth* is described from New Guinea. Nearly every species of all the genera (both Australian and foreign) allied to *Protopalus* has a small spot of whitish scales on each side of the elytra towards the apex; in most of the genera also the antennæ are more or less abnormal. Leaving out of consideration characters subject to sexual variation, the Australian species may be thus tabulated:—

* *P. alboguttatus*, Chev., Pet. Nouv. ii. 1877, p. 189.

Mesosternal receptacle open.....	<i>Schönherrri</i> , Waterh.
Mesosternal receptacle cavernous.	
First joint of funicle shorter than 2nd.	
Elytral interstices granulate.....	<i>cristatus</i> , Pasc.
Only the sutural interstices granulate.....	<i>dromedarius</i> , Boisd.
First joint of funicle longer than 2nd.....	<i>tectus</i> , n.sp.

PROTOPALUS SCHOENHERRI, Waterh.

Trans. Ent. Soc. n. ser. ii. p. 192 and Proc. p. 102 ; Mast. Cat. Sp. No. 5575 : *P. insignicornis*, Lea, Proc. Linn. Soc. N.S. Wales, 1893, p. 630.

At the time I described this remarkable insect I had only seen the description as given on p. 192 of the Transactions, and was unaware of the note (not mentioned in the Catalogue) in the Proceedings mentioning the lengths of the funicular joints. Mr. Waterhouse, moreover, had only seen the female, and his description of course would not apply to the male. In this species the mesosternal receptacle is decidedly open.

P. SCHOENHERRI, var. *ANTENNARIUS*, var.nov.

The male as described by me appears to be the normal form, as I have since seen four others agreeing in the remarkable rostrum and antennæ; but I have under examination a small male which I cannot but regard as conspecific, although it differs to a truly remarkable extent in the rostrum, antennæ and legs. The ocular fovea is very small and round. The rostrum is much shorter, much less dilated at apex and near base, and the scrobes are comparatively deep throughout. The scape is the exact length of the rostrum and just passes the eye, the apex when at rest lying in a very shallow impression before the forehead; the 2nd joint of the funicle is almost twice the length of the 1st and at its apex is not much thicker, the swollen portion being decidedly shorter than the 3rd joint; the club is comparatively shorter and stouter. In my type ♂ the anterior femora project for more than half their length in front of the prothorax; in the variety they project only for about one-third, and the other legs are even

shorter than in ♀. Its dimensions are:—Length from eyes to apex of elytra $13\frac{1}{2}$ (18*); rostrum $6\frac{1}{2}$ (10), scape $5\frac{1}{2}$ (15), first joint of funicle $1\frac{1}{2}$ ($5\frac{1}{2}$), second $2\frac{1}{2}$ ($6\frac{1}{2}$); anterior femora 6 ($9\frac{1}{2}$), posterior $5\frac{1}{2}$ ($7\frac{1}{3}$). Width across shoulders $6\frac{1}{4}$ (8); muzzle $1\frac{1}{3}$ (2). Depth beneath hump 7 (9) mm.

PROTOPALUS DROMEDARIUS, Boisd.; *l.c.*, No. 5574.

F. Stephensi, Bohem., *l.c.*

♂. Black, elevated portions feebly shining; antennæ piceous-brown, parts of the mouth (mandibles excepted) pale red. Moderately clothed with sooty-brown, ochreous and pale yellow scales; each elytral puncture with one or more scales. Prothorax with three feeble basal stripes of pale scales. Sutural crest of elytra with setæ, short and brown at base, becoming longer and almost black near but not at apex, and with several small tufts of pale scales. Under surface rather more densely clothed than upper, the scales varying from almost white to dark ochreous-brown; abdomen with feeble lines of pale scales; pectoral canal almost glabrous. Head, rostrum and legs rather sparsely squamose. Funicle with long hair, moderately dense inwardly, shorter and sparser outwardly.

Head sparsely and feebly punctate; a feeble ridge behind the (shallow) ocular fovea. Rostrum longer than prothorax, slightly decreasing in width to near antennæ, beyond antennæ flattened, a feeble ridge from ocular fovea to beyond middle, a shorter ridge on each side distinctly elevated near eyes; four grooves opening out between eyes, the two lateral continued almost to antennæ; not strongly but moderately densely punctate, especially at apex, very irregularly towards base; beneath with three irregularly granulate ridges, the inner one rather feeble and punctate at apex. Scape almost the length of funicle and club combined, inserted at about one-fifth from apex of rostrum, and resting in a shallow scrobe; all joints of the funicle longer than wide, the 1st

* The dimensions given in brackets are those of the ♂ specimen described by me as *insignicornis*.

slightly shorter than 2nd and slightly longer than 3rd, 5th-7th subequal in length. *Prothorax* with a strongly elevated median carina in front, stoutest in middle, and from there feebly continued to base; each side of it in front not granulate, but elsewhere with large granules, each of which is supplied with a sooty seta. *Scutellum* round. *Elytra* about once and one-half the width of prothorax, shoulders produced laterally and angular; sides decreasing to apex, apex widely rounded; suture strongly raised from near base to about one-third from apex, the ridge granulate and abrupt at both its base and apex, a distinct and moderately large subconical tubercle* on third interstice near base; seriate-punctate, the punctures large but rather shallow†; interstices narrow, those near the suture feebly granulate, the 5th and 6th on the disc and shining from near base, the 7th-11th on the sides and highly polished, the 7th and 8th uniting to form the humeral projection, the 9th and 10th curved upwards at base; posterior declivity feebly striate and very feebly punctate. *Mesosternal receptacle* U-shaped, walls thin, open except at extreme base.‡ *Legs* long; posterior femora just extending to apex of elytra. Length 20, rostrum 8; width 10; depth $9\frac{1}{2}$ mm.

Hab.—S. Queensland—N.S.W.: Tweed and Richmond Rivers.

In this species the pectoral canal terminates distinctly beyond the middle of the intermediate coxæ; in the two following it terminates before them.

Mr. Waterhouse remarks:—"I have an insect which agrees with Schönherr's description of *Protopalus Stephensii* so perfectly in all respects, excepting that the rostrum is not crenulated beneath, and the anterior legs are but a trifle longer than the others, that I strongly suspect their differences merely indicate a distinction of sex."§ I do not think it probable that Mr. Water-

* Varying in size on different individuals.

† In some specimens the punctures of the lateral striæ are separated by ridges, but this does not appear to be invariably the case.

‡ As at its base it slightly overhangs the pectoral canal it cannot be called open, although on a first glance it appears to be so.

§ Mr. Waterhouse possibly had a specimen of *cristatus* under examination.

house had the sexes of *Stephensii* (*dromedarius*) under examination, as in all the genera of the *Mecistostylides* that I have seen the sexual differences of the rostrum and antennæ are very pronounced and unmistakable. M. Lacordaire gave his generic diagnosis from a male which he presumed to be that of *Stephensi*, but in this he was certainly mistaken, the diagnosis being drawn up from the male of *Schönherrri*. I have three specimens which agree so perfectly with Boheman's specific description of *Stephensi* and Schönherr's diagnosis of *Protopalus* that it is impossible that I can be mistaken, and dissection proves them to be males; I have also received notes and sketches of the type of *dromedarius* (see these Proceedings, 1900, p. 538, pl. xxx., figs. 1-2).

PROTOPALUS CRISTATUS, Pasc.; *l.c.*, No. 5573.

♂. Black, granules slightly shining; antennæ piceous-brown, parts of the mouth (mandibles excepted) pale red. Clothing much as in *dromedarius*, but the scales rather denser, and the sutural crest of the elytra clothed with long sooty-brown setæ, and without the tufts of paler scales at its apex and sides. Pectoral canal feebly squamose. Funicle with a few long hairs inwardly.

Head as in *dromedarius*. Rostrum slightly longer than prothorax, sides feebly and regularly incurved to middle from both base and apex; feebly ridged along middle; each side with two feeble grooves, the ridges separating them irregularly waved; not very strongly punctate, the apex densely punctate except along the middle; beneath with three feeble punctate ridges, the middle ridge with a few small granules. Scape slightly shorter than funicle, inserted at about one-fourth from apex of rostrum; funicle with 1st joint slightly more than half the length of 2nd, and not twice the length of 3rd; 6th-7th feebly transverse. *Prothorax* more rounded than in *dromedarius*, the median carina less elevated in front, and the granules more numerous and regular. *Scutellum* smaller and narrower than in *dromedarius*. *Elytra* about once and one-third the width of prothorax; shoulders thickened but scarcely produced outwardly, and the width across

them not much greater than across apical third; suture with a strongly elevated and granulated crest, higher than in *dromedarius*, but not commencing or terminating abruptly, at its apex appearing as part of the posterior declivity; all the interstices with shining granules, except the three outer ones from near the base, the granules largest towards suture and base, the 3rd with a small cluster of granules near base; striate-punctate, the punctures large and round, but rather shallow, except towards the sides: none of the interstices polished. *Mesosternal receptacle* transverse, broad V-shaped, emargination strongly transverse; cavernous. *Legs* moderately long; posterior femora scarcely extending to apex of elytra. Length 14, rostrum 5; width $6\frac{1}{2}$; depth 7 mm.

Hab.—"Queensland" (Pascoe), Endeavour River (Mr. G. Masters).

The differences between this species and *dromedarius* are many and striking, the most noticeable being in the width across shoulders, the crests of the prothorax and elytra, and the granulation of the interstices. Mr. Pascoe says, "the character of the funicle allies it to *Schönherri* rather than to *dromedarius*"; otherwise the antennæ are not even mentioned. The specimen described above, however, agrees with Mr. Pascoe's description as far as it goes, and as it was given to me by Mr. Masters it might be regarded as a cotype.

PROTOPALUS TECTUS, n.sp.

♀. Black, subopaque; antennæ piceous-brown; parts of the mouth (mandibles excepted) of a rather dingy red. Moderately densely clothed with dingy greyish and ochreous scales, more numerous on legs than elsewhere; pectoral canal feebly squamose; apical half of rostrum glabrous; elytral crest (in five specimens) without long setæ. Funicle with fine silvery pubescence.

Head sparsely and feebly punctate; a moderately short shining carina behind ocular fovea; rather strongly excavated between eyes, the derm there being shining and without scales. Rostrum rather short and broad, only the length of prothorax, sides feebly incurved to middle; rather densely punctate, punctures small,

along the middle almost impunctate; at base with three feeble ridges and four feeble grooves, the lateral ones terminated before antennæ, the median very short; beneath with three slightly roughened but scarcely elevated lines. Scape the length of funicle, inserted one-third from apex of rostrum; funicle with the 1st joint very slightly longer than the 2nd, 5th-6th feebly, the 7th rather strongly transverse; club moderately large. *Prothorax* somewhat rounded, with a distinct, narrow, shining median carina, moderately strongly elevated in front, but becoming feeble towards base; with numerous moderately large granules, largest and sparsest about middle, densest at base and on flanks, and small on each side of middle towards apex, each granule with a sooty seta. *Scutellum* feebly transverse. *Elytra* about once and one-third the width of prothorax; shoulders thickened, from behind them regularly decreasing to near apex, apex widely rounded; suture raised, but scarcely crested in middle, and with small shining granules; a few small granules at base; seriate-punctate, punctures large, round and moderately deep, larger towards suture than sides, except just behind shoulders, where are the largest of all; lateral interstices highly polished. *Meso-sternal receptacle* strongly transverse, somewhat rounded; cavernous. *Legs* long; posterior femora distinctly passing apex of elytra. Length 10, rostrum $2\frac{3}{4}$; width 4; depth $4\frac{3}{4}$ mm.

Hab.—N.Q.: Cairns (Macleay Mus.), Cooktown (Herr J. Faust).

I have seen only females of this species, but the small size (in comparison with its congeners) should render the species very distinct; the small sutural crest unadorned with long setæ may be characteristic of the female only. The large excavation between the eyes caused me to think all five specimens were males, but on dissection eggs were discovered.

Genus *DYSOPIRHINUS*, Roelofs.

Ann. Soc. Ent. Belg. xxiii., C.R. p. xlv. 1880.

Head large, convex, not concealed. *Eyes* large, semicircular, not distant, rather finely faceted. *Rostrum* long and stout, rather strongly curved. *Antennæ* rather long; scape inserted nearer apex

than base of rostrum, and shorter than funicle; three basal joints of funicle elongate, 7th adnate to and clothing almost as on club; the latter ovate and with oblique sutures. *Prothorax* longer than wide, sides lightly rounded, base bisinuate, constriction light, ocular lobes obtuse and almost level with apex. *Scutellum* distinct. *Elytra* elongate-cordate, each separately rounded at base. *Pectoral canal* deep and wide, terminated between intermediate coxæ. *Mesosternal receptacle* raised and solid to middle, then the sides thin and sloping to apex, emargination transverse; cavernous. *Metasternum* somewhat shorter than the following segment; episterna distinct. Basal segment of *abdomen* as long as the two following combined, intercoxal process narrow, apex incurved; 2nd the length of 5th, and very little shorter than 3rd and 4th combined. *Legs* long and thin; femora not grooved and feebly dentate, posterior passing elytra; tibiæ thin, curved, apex with a small tooth very close to the terminal hook; tarsi much shorter than tibiæ, 1st and 4th joints rather long, and 4th wide. Elliptic, convex, squamose, winged.

Close to *Protopalus*, but the elytra separately rounded at base, and the shoulders not produced. In its pectoral canal varying in depth it approaches *Orphanistes*. The species described below appears to be new despite its large size. Unfortunately I have been unable to see the original diagnosis of *Dysopirhinus*, but the species described below is certainly congeneric with Dr. Heller's *D. albosparsus* from New Guinea.

DYSOPIRHINUS GRANDIS, n.sp.

Dark reddish-brown, prothorax darker. Moderately densely clothed with ochreous-yellow scales, and with subquadrate patches of sooty scales; each prothoracic granule with a stout scale. Abdomen with sooty scales, with small patches of paler scales at the sides of the four basal segments.

Head feebly punctate, feebly depressed on each side behind the eyes. Rostrum longer than prothorax, rather suddenly bent at apical third, each side of basal half with a ridge bounding the lateral grooves, the ridges becoming very distinct between eyes,

ridged along middle to between antennæ; not very densely or coarsely punctate, punctures distinct only on apical third. Funicle with the 2nd joint the length of 3rd and 4th, and considerably longer than 1st, 4th-6th gradually decreasing in length. *Prothorax* slightly longer than wide, subcylindrical, apex more than half the width of base; with a distinct, narrow, shining, continuous, median carina; with numerous large round granules that become smaller towards and disappear on each side of apex. *Scutellum* subcordate. *Elytra* about twice and one-third the length of prothorax, and not much wider at base, where each is separately rounded; with series of large, round, partially concealed punctures, each of which contains a scale; interstices regular, convex, much wider than punctures, each with a series of small and very obtuse granules. *Pectoral canal* much deeper between anterior coxæ (almost the whole of which are exposed) than elsewhere. *Metasternum* and abdomen very feebly punctate. *Legs*, especially the anterior, long and thin; tibiæ thin, four posterior lightly curved at base, the anterior rather strongly at apical third. Length 19, rostrum $6\frac{1}{2}$; width 8; variation in length 16-19 mm.

Hab.—Queensland (Mr. C. French), Gulf of Carpentaria (Rev. T. Blackburn, No. 4937).

NOTOCRYPTORHYNCHUS, n.g.

Head partially concealed. *Eyes* ovate-triangular, rather coarsely faceted. *Rostrum* moderately long and rather thin, moderately curved. *Antennæ* rather stout; scape the length of funicle, two basal joints of the latter moderately long; club ovate, sutures straight. *Prothorax* feebly transverse, sides rounded, base bisinuate. *Scutellum* distinct. *Elytra* oblong-cordate, wider than prothorax and each separately rounded at base. *Pectoral canal* deep and wide, terminated between four anterior coxæ. *Mesosternal receptacle* rather strongly raised to beyond the middle, sides incurved to base, emargination moderately transverse; cavernous. *Metasternum* slightly longer than the following segment; episterna distinct. *Abdomen* with straight

sutures, 1st segment as long as 2nd and 3rd combined, 2nd distinctly longer than 5th and slightly shorter than 3rd and 4th combined. *Legs* moderately long; femora feebly grooved and dentate, posterior not extending to apex of abdomen; tibiæ lightly compressed and almost straight, with a distinct subapical tooth in addition to the terminal hook; tarsi normal. Oblong-elliptic, convex, winged.

Rather close to the preceding genus but differing in the eyes, sterna, abdomen and legs; from *Mecistocerus* (to several species of which the species described below bears a resemblance) it may be distinguished by the sterna; and from *Cryptorhynchus* by the comparatively large second abdominal segment. The sinuated forehead would appear to denote affinity with a number of the allies of *Poropterus*. The species described below is possibly Boheman's *Cryptorhynchus mæstus*, but the elytra of that species are described as trisinate at the base, with the interstices subconvex and only the posterior femora dentate. It is true that the teeth of the four anterior femora of the specimens now described are very indistinct and might easily be overlooked, but the elytra are decidedly bisinate at the base, with distinctly raised and narrow interstices.

The genus is apparently close to *Cyamobolus* (numerously represented in the Malay Archipelago and New Guinea), but differs in the rostrum and rounded shoulders.

NOTOCRYPTORHYNCHUS SINUATUS, n.sp.

Black, antennæ dull reddish-brown. Sparsely clothed with elongate subsetose reddish-ochreous scales, but the elytra in addition with narrow transverse fasciæ (almost or quite invisible to the naked eye except posteriorly) of stramineous scales. Sterna and legs with elongate pale scales, four apical segments with stout muddy brown scales not rising above general level.

Head feebly punctate at base, elsewhere distinctly but irregularly punctate; forehead irregularly quadrisinate; ocular fovea rather large, a feeble ridge extending backwards from its posterior end. Rostrum the length of prothorax; basal half coarsely punc-

tate and with a median carina, apical half shining and much less coarsely punctate. Scape inserted one-third from apex of rostrum; 2nd joint of funicle slightly longer than 1st and the length of 3rd and 4th combined, 4th-7th transverse. *Prothorax* not much wider than long, basal two-thirds subparallel, with a narrow but very distinct and continuous median carina; coarsely punctate, all the punctures confluent, so that the interspaces appear as granules or short irregular ridges. *Elytra* about once and one-third the width of prothorax and twice and one-half its length, each separately rounded at base, sides parallel to near apex, then strongly arcuate to apex; with series of moderately large, oblong, more or less concealed punctures; interstices more or less acutely ridged, the ridges frequently consisting of elongate granules, alternate ones distinctly elevated and lightly curved. *Under surface* with dense and rather coarse punctures, becoming very large on metasternal episterna. *Legs* densely punctate; posterior femora feebly, the others very feebly, dentate. Length 12, rostrum 3; width 6 mm.

Hab.—N. Australia—Queensland (Herr. J. Faust).

The clothing gives the species a very dingy appearance even in perfectly preserved specimens; it is moderately dense only on the scutellum. The 3rd, 5th and 7th interstices are lightly curved at base and again on posterior declivity; the curvature is very distinct to the naked eye but obscure under a lens.

Genus ORPHANISTES, Pascoe.

Journ. Linn. Soc. Zool. x. p. 454, 1869.

Head of moderate size, concealed from above. *Eyes* large, widely ovate, finely faceted. *Rostrum* long and almost straight. *Antennæ* thin; scape shorter than funicle, inserted nearer apex than base of rostrum; club thin, joints oblique. *Prothorax* trigonal, base bisinuate, ocular lobes obtuse. *Scutellum* subquadrate. *Elytra* trigonal, wider than prothorax, widest across shoulders. *Pectoral canal* narrow, deep only between the anterior and terminated between the intermediate coxæ. *Mesosternal receptacle* sloping from base to apex, elongate U-shaped; very slightly

cavernous. *Metasternum* slightly shorter than the following segment; episterna moderately wide. *Abdomen* rather small, intercoxal process narrow; suture between 1st and 2nd feebly incurved, between the others slightly curved outwardly; 2nd segment the length of 5th and but little longer than 3rd or 4th. *Legs* long and thin; femora dentate, not grooved, not passing elytra; tibiæ slightly compressed, tarsi not very long. Subelliptic, strongly convex, squamose, winged.

A very remarkable genus, rather closely allied to *Protopalus*.

ORPHANISTES EUSTICTUS, Pasc.; *l.c.* No. 5500.

♂. Black. Clothed with small patches of red scales to which are frequently joined smaller patches of pale yellow scales, their distribution irregular.

Head indistinctly punctate. Rostrum longer than prothorax and almost perfectly straight, slightly swollen near base between antennæ and near apex; indistinctly punctate on basal half, but with four series of small shining irregular granules, between antennæ an impunctate shining space, apical half rather coarsely punctate; a shallow groove connecting scrobe with apex. Funicle with the 2nd joint almost thrice the length of 1st and the length of 3rd-5th, 3rd the length of 4th-5th, 4th slightly longer than 5th, 5th the length of 7th and slightly longer than 6th, 5th-7th the length of club. *Prothorax* longer than wide, sides oblique from apex to near base, with large shallow and irregular punctures or foveæ except on each side of apex; with a very distinct continuous median carina which becomes strongly elevated in front, each side of apex with a short shining ridge; prosternum largely transversely excavated between coxæ and apex, the derm (except towards side and near canal which is here less than half the depth that it is between the coxæ) highly polished and impunctate. *Scutellum* slightly transverse and velvety. *Elytra* about twice the length of prothorax, each separately rounded at base which is considerably wider than prothorax, shoulders projecting, behind them regularly and strongly decreasing in width to apex; seriate-punctate, punctures large and subquadrate but shallow

and not distinct; interstices narrow, strongly raised (especially the 3rd and 5th) and shining. *Under surface* indistinctly punctate except for a row on each flank of the metasternum. *Legs* long; posterior femora extending to but not passing apex of elytra, feebly dentate, intermediate shortest, anterior longest; tibiae thin and slightly shorter than femora. Length 22, rostrum $7\frac{1}{2}$; width 9 mm.

♀. Differs in having the rostrum shorter, slightly but still distinctly curved and its granules and punctures less pronounced; the prothoracic carina is not so highly elevated and the apical ridges are almost obsolete, the excavation of the prosternum is less profound and the femoral teeth are even less distinct.

Hab.—"Queensland" (Pascoe), Rockhampton (Macleay and Sydney Museums).

The most remarkable feature about this species, and which, so far as I am aware, is unique in the subfamily, is the transverse excavation of the prosternum: singularly enough this is not even mentioned by Mr. Pascoe. The small patches of scales are prettily variegated and are frequently confined to single punctures; the largest patches are on each side of apex and each side of the lower flanks of the prothorax, and at basal third and near apex of the elytra; on the abdomen the scales and nude spaces form seven lines; the apex of each of the femora is clothed with reddish scales immediately preceded by a band of pale yellow scales. There are some small blackish scales scattered about, but these are nowhere distinct. The elevations on the front of the prothorax are reminiscent of many of the *Membracide*. The pectoral canal is twice the depth between the anterior coxæ that it is elsewhere.